

Applicant: Xuekui Lan et al.
Application No.: 09/763,214
Response to Office action mailed Jul. 26, 2005
Response filed October 24, 2005

Remarks

Claims 1, 3–4 and 8–12 remain pending in the application. Claims 2, and 5–7 have been canceled. In the Office action dated Jul. 26, 2005, claims 10 and 12 were rejected as containing new matter and claims 10–12 were rejected as indefinite. Claims 1–3 and 10 were rejected as obvious over Eklund in view of Holt et al. Claims 4 and 12 were rejected as obvious over Eklund in view of Holt et al. and further in view of WO97/08385. Claims 8–9 and 11 were rejected as obvious over Eklund in view of Holt et al and further in view of Elvidge et al.

In response to the new matter rejection, claim 10 has been amended to strike the word “diverging”. With respect to claim 12, the blade 36, as shown in FIG. 3, is clearly mounted between the flow stabilizer 34 and another structure not labeled. The surface or end 50 is labeled and described as “surfaces 50 of the coater head” (p. 11, lines 17–18) or “the end 50 of the portion of the coater head which comprises the downstream extension of the flow stabilizer.” (p. 14, lines 20–22.) Thus the surface to which the flexible blade is held by the flow stabilizer 34 is also a surface of the coater head. For further clarity the blade 36 is now claimed as mounted to a surface of the coater head.

With respect to the rejection of claims 10–12 as indefinite, applicant has amended claim 10 to delete “diverging”. Claim 11 has been amended based on the examiner’s suggestion to clarify that the surfaces of the rod in the backing roll move in opposite directions along a contact line. Applicant has amended claim 12, and, as argued above, the specification clearly supports a “flexible blade mounted to a surface of the coater head”.

With respect to claim 1, applicant has added the limitations of claim 2 and further limited that claim to a blade “the blade having a blade surface and a proximate end mounted in the coater head and a distal end extending downstream such that a portion of the blade surface which extends to the distal end is substantially tangent to the backing roll”. This limitation clearly distinguishes over Eklund et al. also provides a key functionality of the coater. The blade surface

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is shown in FIG. 3 and is labeled 52 as set forth in the paragraph beginning on p. 11, line 17 and amend in the last response.

Claim 10 has been amended to require that all of the coating from the recirculation chamber flows into the mixing chamber. As amended, claim 10 distinguishes over Eklund et al. which uses the throttle valve 18 to control the pressure in the outlet duct 15 (col. 4 lines 40-43). To achieve its stated function of controlling pressure, the throttle valve must be partially open. The claimed invention uses a series of flow-metering orifices which are between the recirculation chamber and the mixing chamber, is fundamentally different from the throttling valve 18 of Eklund et al which doses not lead in to the mixing chamber.

This is also the reason why Eklund et al and Holt et al are not properly combined, because flow-metering orifices function fundamentally differently than an adjustable valve, the flow-metering orifices are not adjustable and perform their function of increasing resistance to flow when the entire flow from the mixing chamber is arranged to pass through the flow-metering orifices. On the other hand, the throttle valve of Eklund is arranged to vent a chamber to control pressure, which in turn controls flow. These basic differences in operation mean that, without some suggestion and expectation of success that flow-metering orifices can replace the throttling valve in the coater, the references cannot be combined.

With respect to claim 4, in addition to repeating the argument above, i.e., Eklund et al and Holt et al can not properly be combined, applicant has amended claim 4 to clearly distinguish over the PCT publication '385 to claim a blade which is supported on one end only. Furthermore, claim 4 requires "a recirculation channel on the other surface of the blade" which is not shown or suggested by PCT publication '385.

Claims 3, 8-9 and 11-12 add limitations which, when considered as a whole with the claims from which they depend, further limit the claims and further distinguish over the prior art.

Applicant believes that no new matter has been added by this amendment.

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Applicant submits that the claims, as amended, are in condition for allowance. Favorable action thereon is respectfully solicited.

Respectfully submitted,



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